

Fig. 1

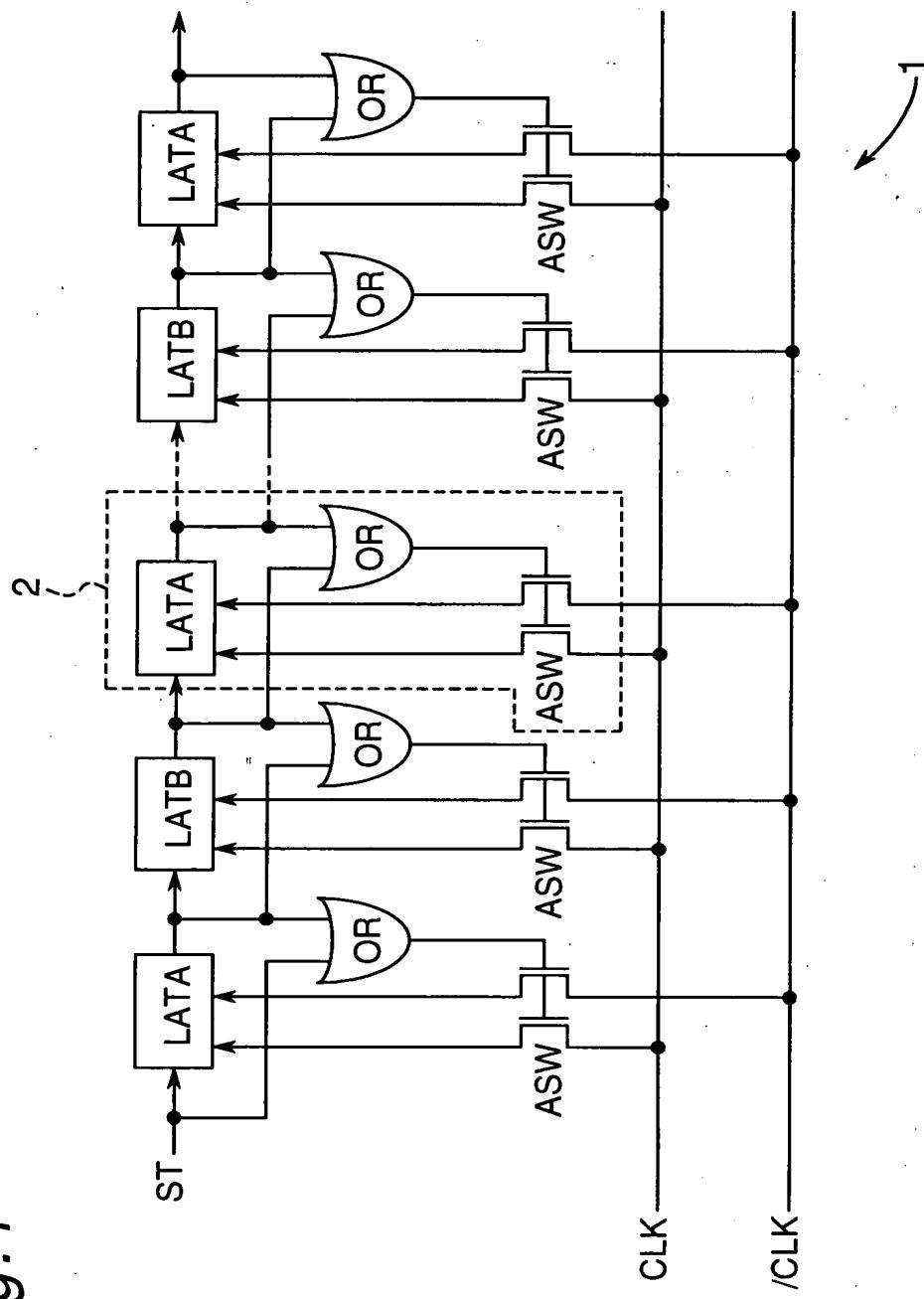


Fig.2A RELATED ART

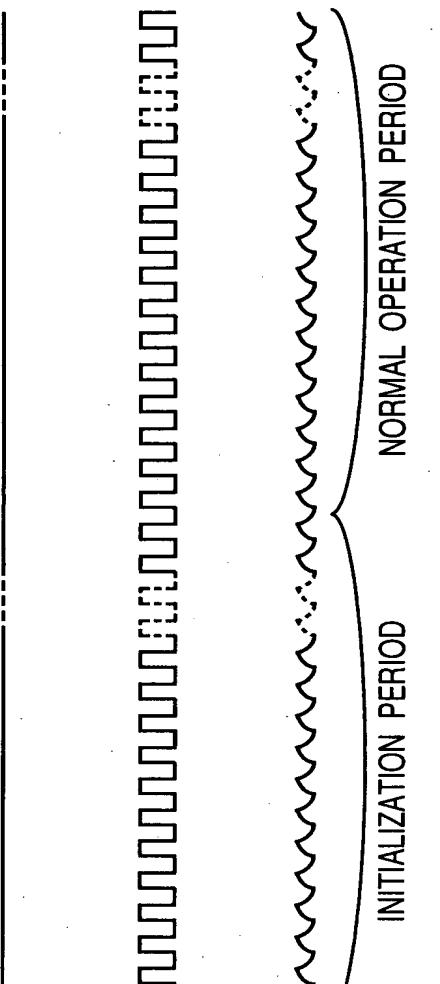


Fig.2B RELATED ART

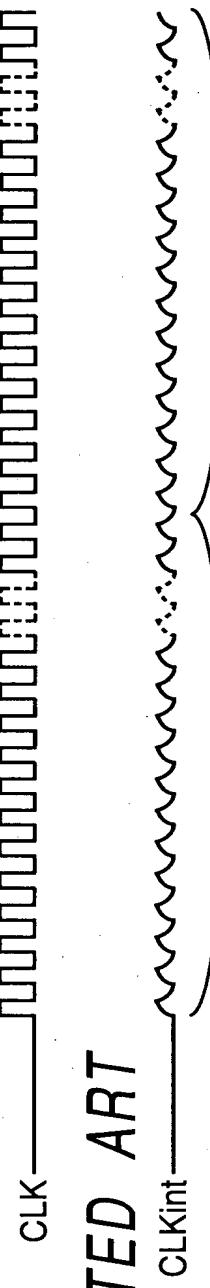


Fig.2C RELATED ART



Fig.3A RELATED ART

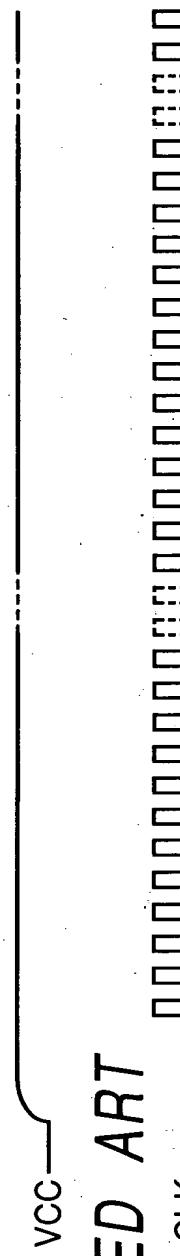


Fig.3B RELATED ART



Fig.3C RELATED ART

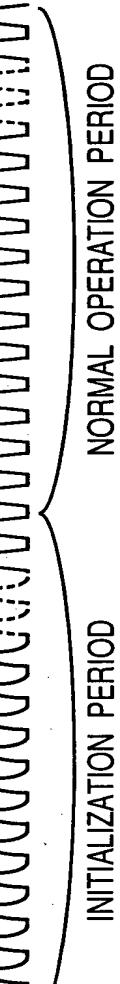


Fig. 4A

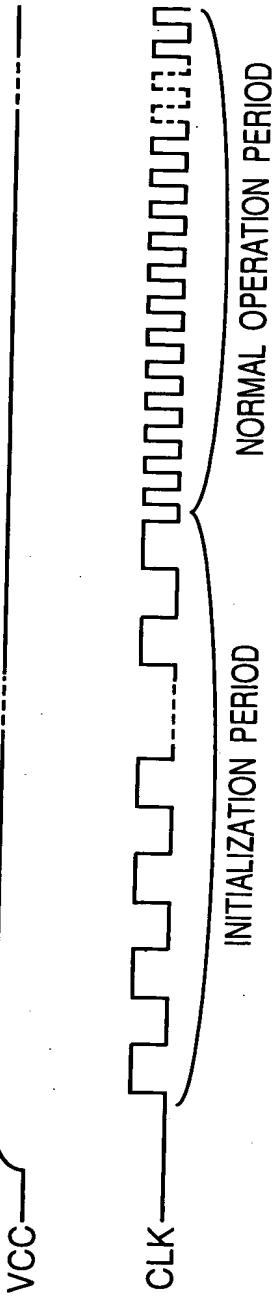


Fig. 5A

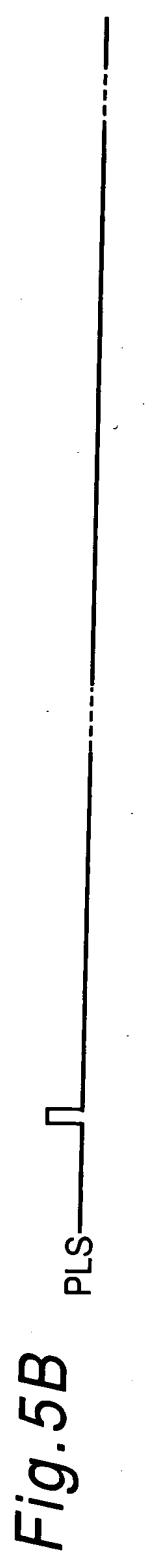


Fig. 5C

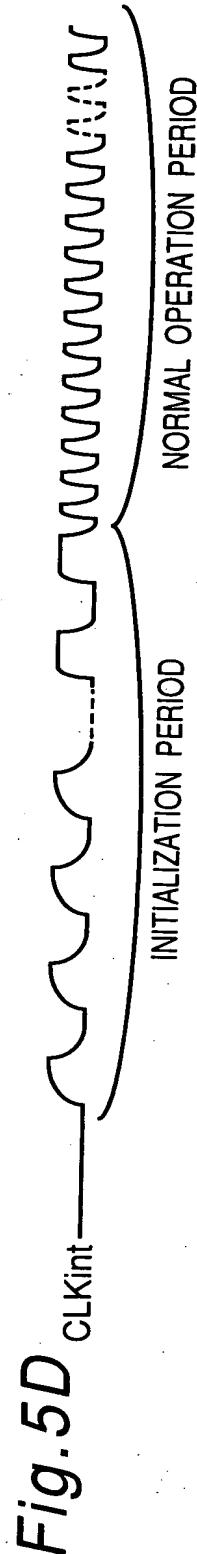


Fig. 6A



Fig. 6B

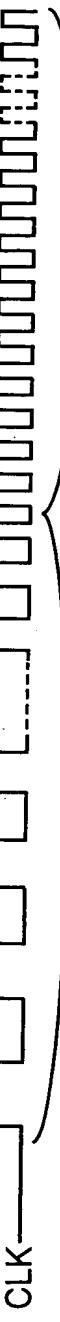


Fig. 7A



Fig. 7B



Fig. 7C



Fig.8

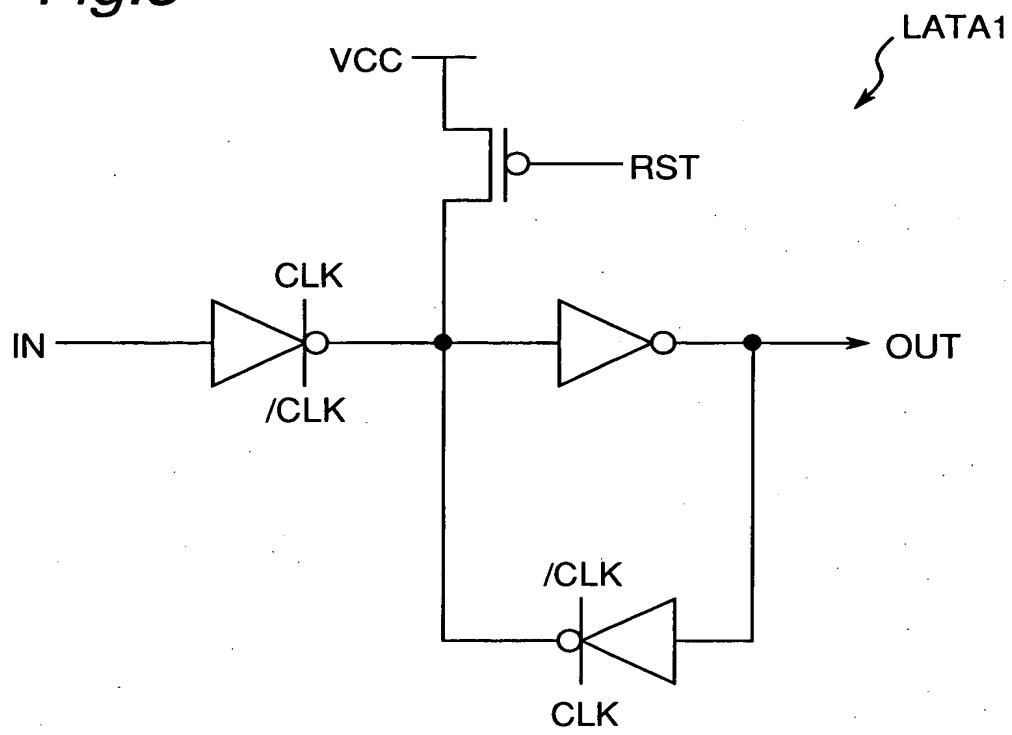


Fig.9

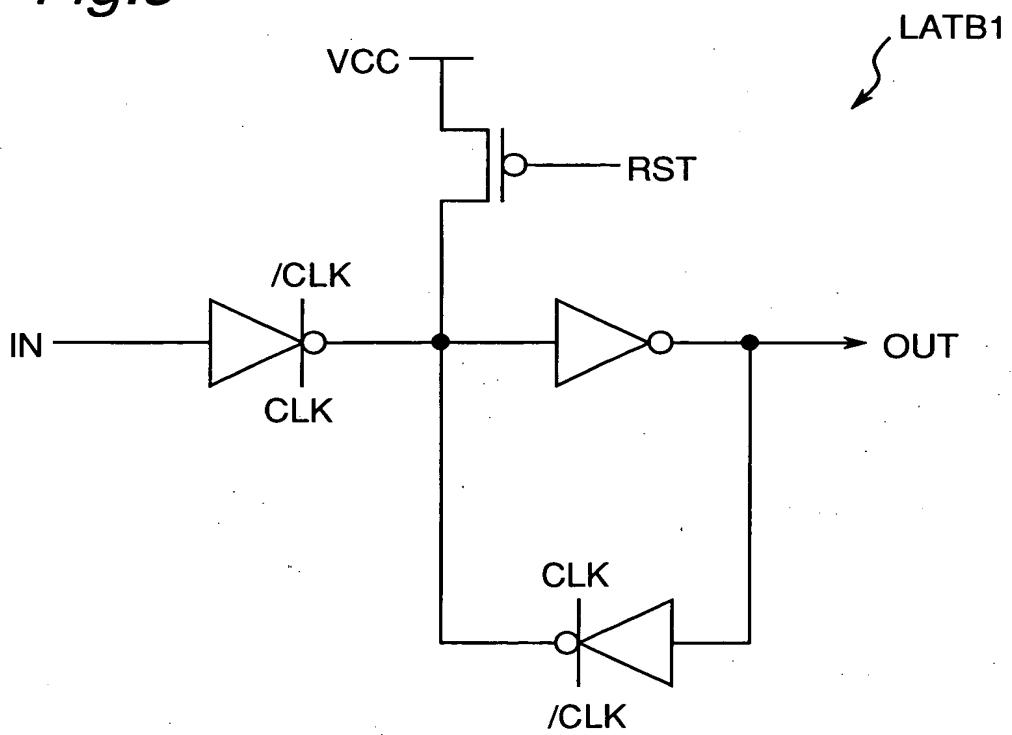


Fig. 10A

vcc

Fig. 10B

RST

Fig. 10C

CLK

INITIALIZATION
NORMAL OPERATION
PERIOD
PERIOD

Fig. 11A

PLS

Fig. 11B

RST

Fig. 11C

CLK

INITIALIZATION
NORMAL OPERATION
PERIOD
INITIALIZATION
NORMAL OPERATION
PERIOD

Fig.12

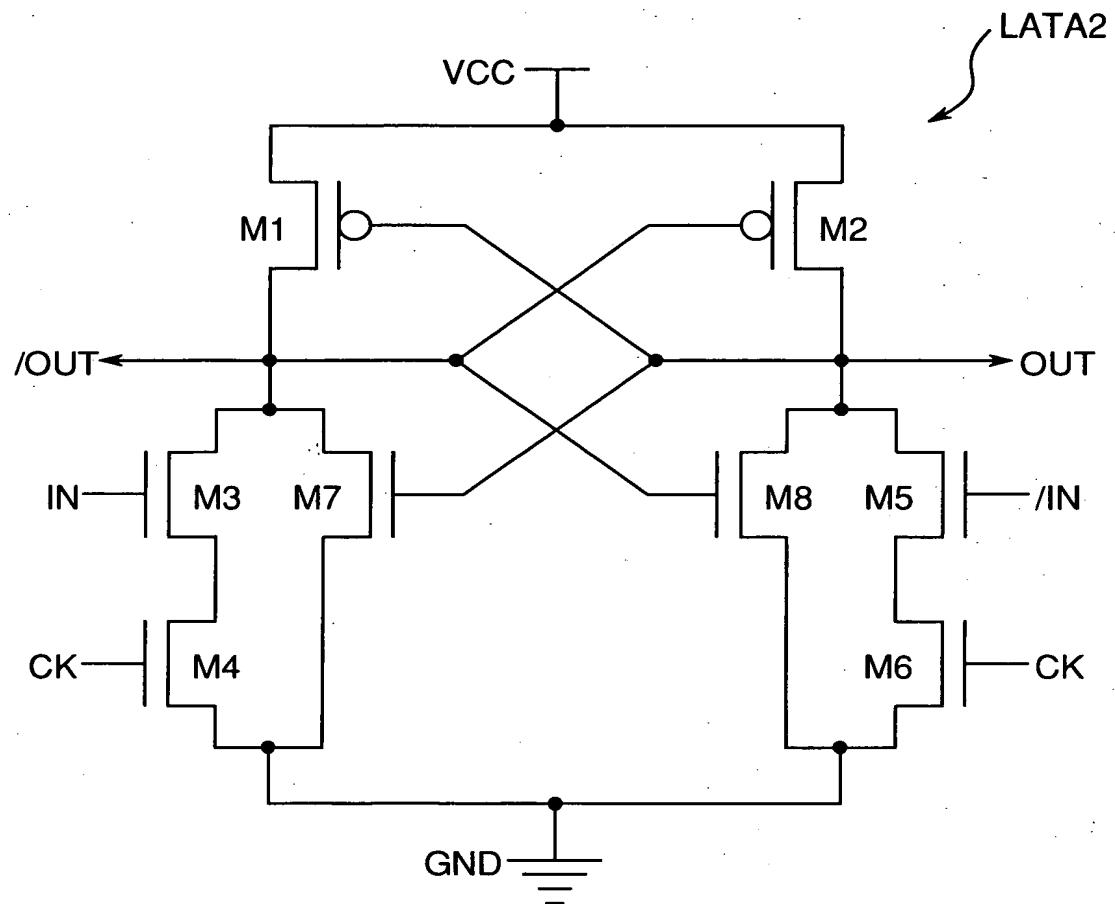


Fig.13

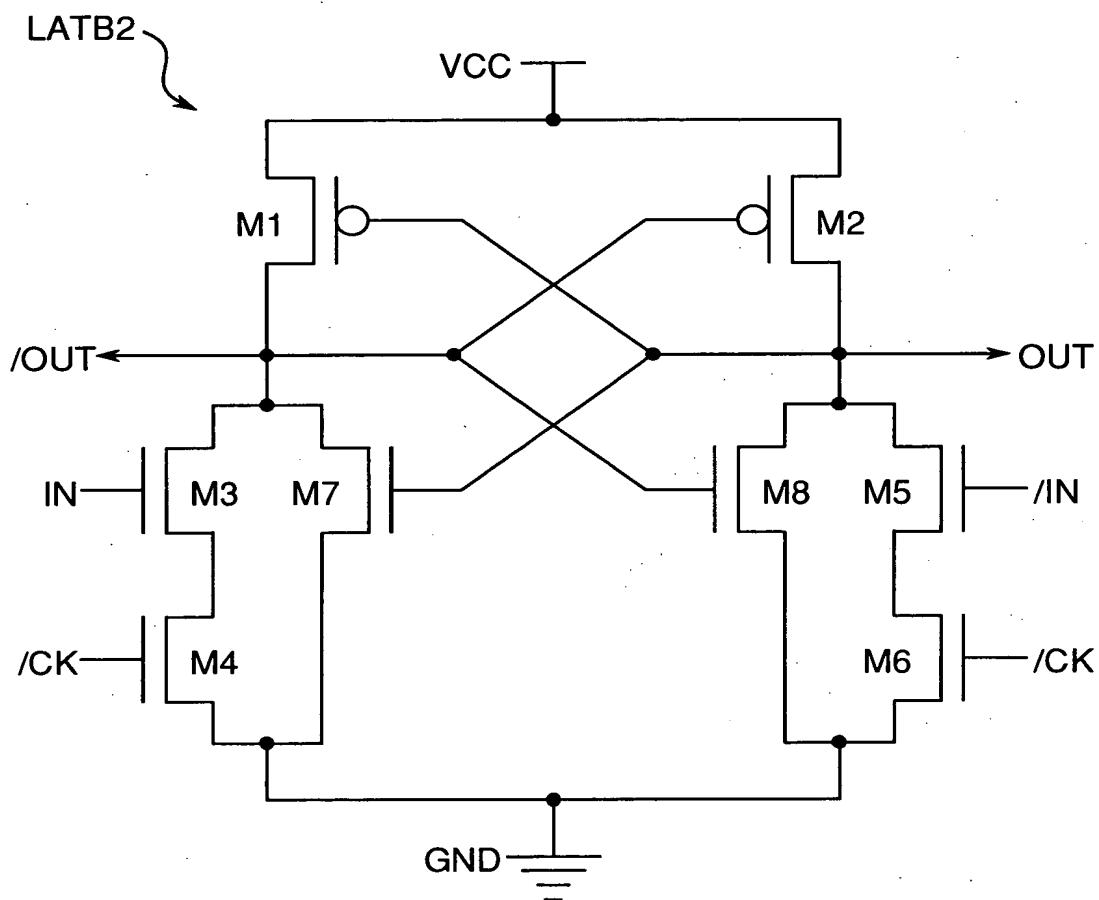


Fig. 14

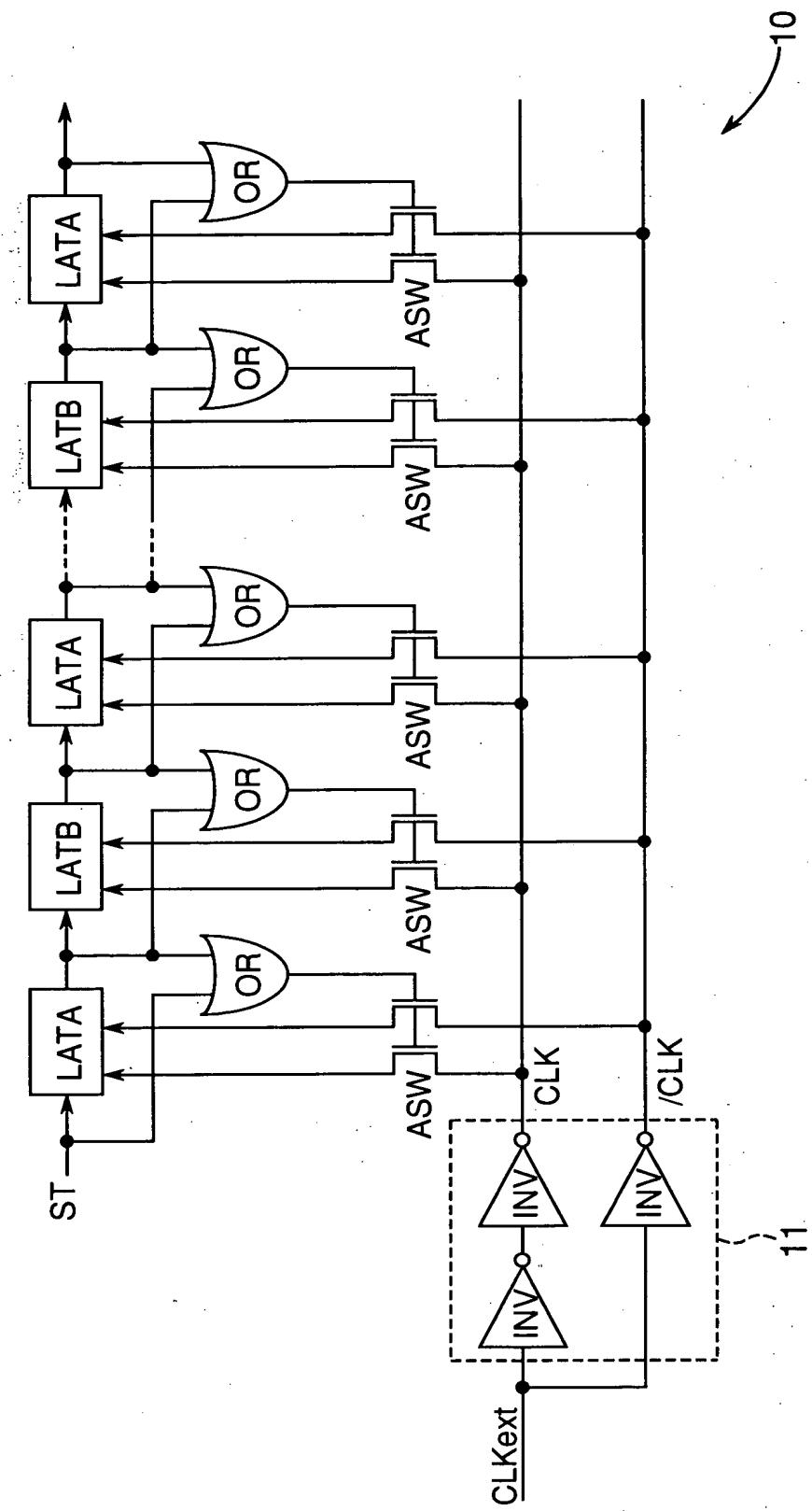


Fig. 15

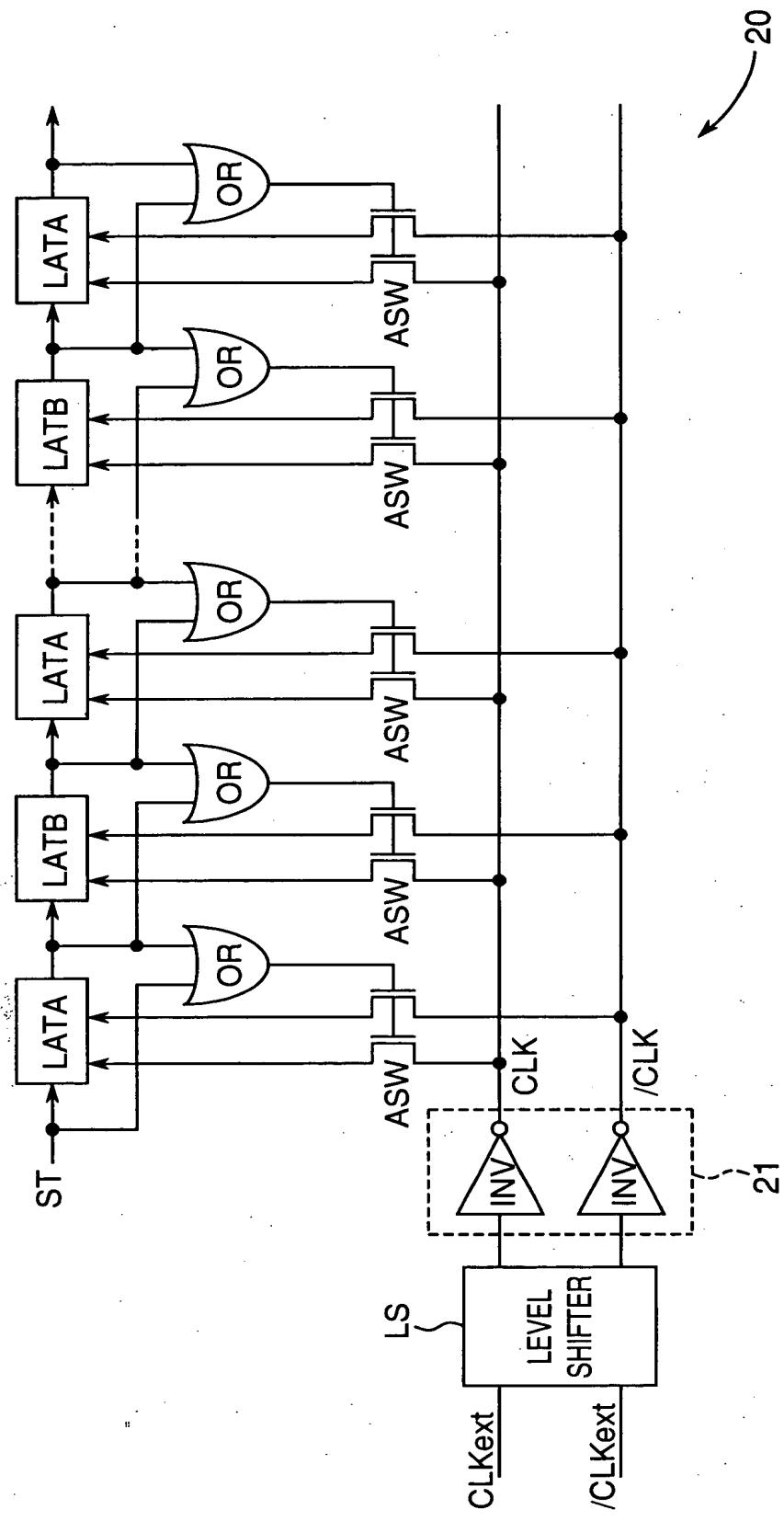


Fig. 16A

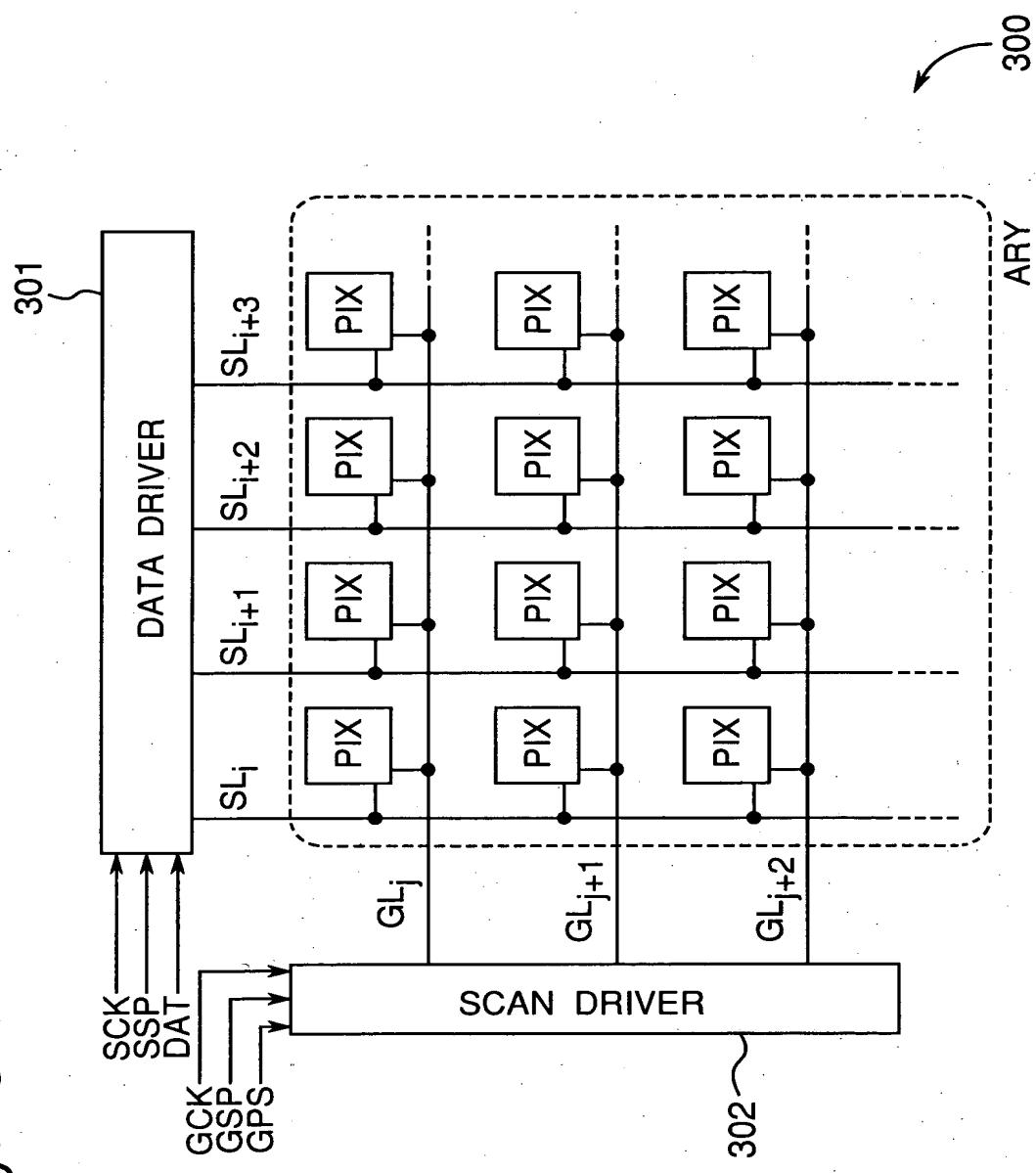


Fig. 16B

401 DATA DRIVER

SUB

DAT
SCK
SSP
GCK
GSP
GPS

TIMING SIGNAL
GENERATOR

CTL

SL_i SL_{i+1} SL_{i+2} SL_{i+3}

PIX

PIX

PIX

PIX

PIX

PIX

ARY

GL_j

GL_{j+1}

GL_{j+2}

402
SCAN DRIVER

VSL COM VSH
VGL VGH SUPPLY VOLTAGE
VGEN GENERATOR

400

Fig. 17

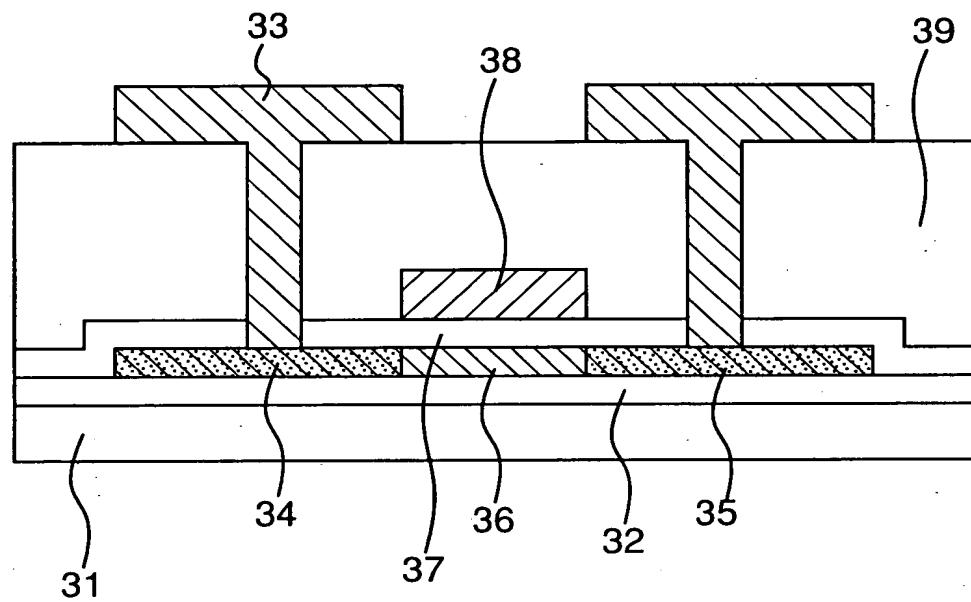


Fig. 18A

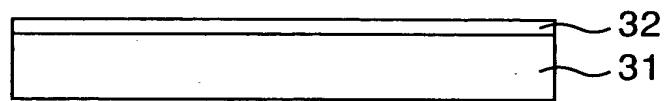


Fig. 18B

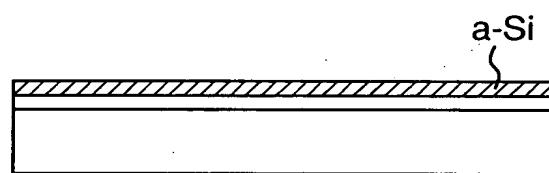


Fig. 18C

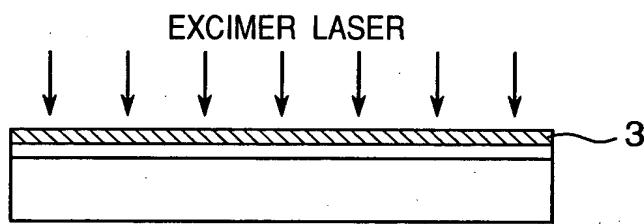


Fig. 18D

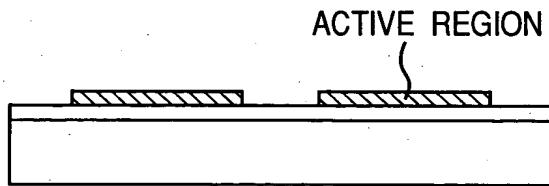


Fig. 18E

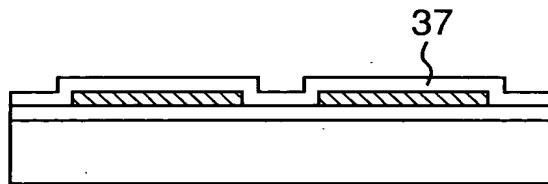


Fig. 18F

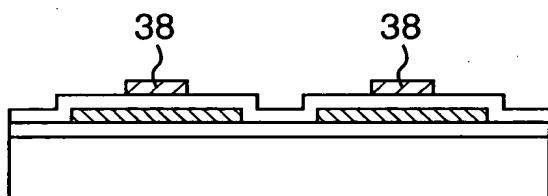


Fig. 18G

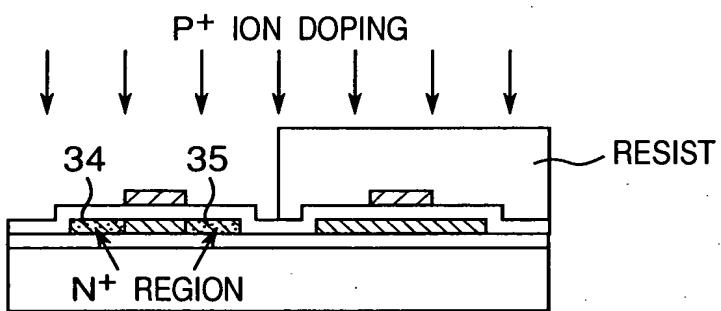


Fig. 18H

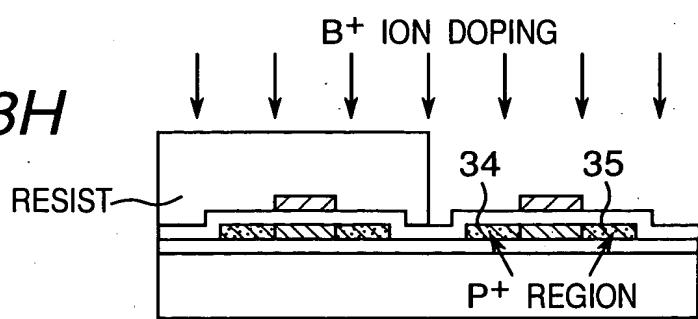


Fig. 18I

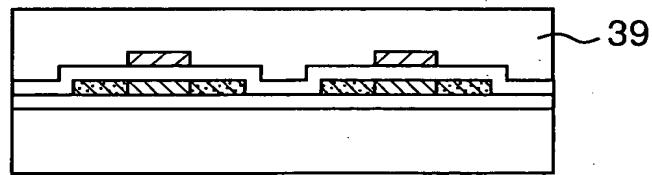


Fig. 18J

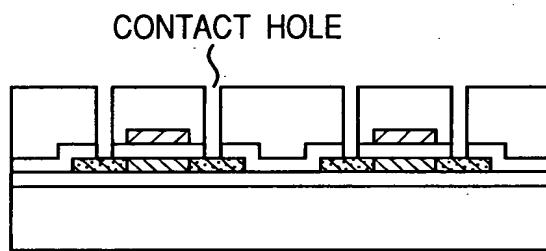


Fig. 18K

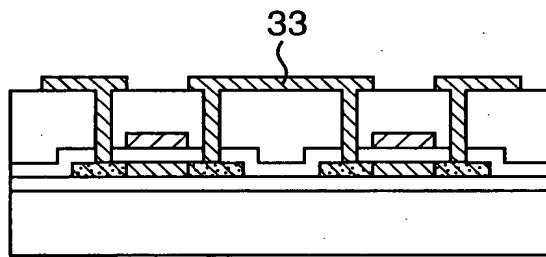


Fig. 19 RELATED ART

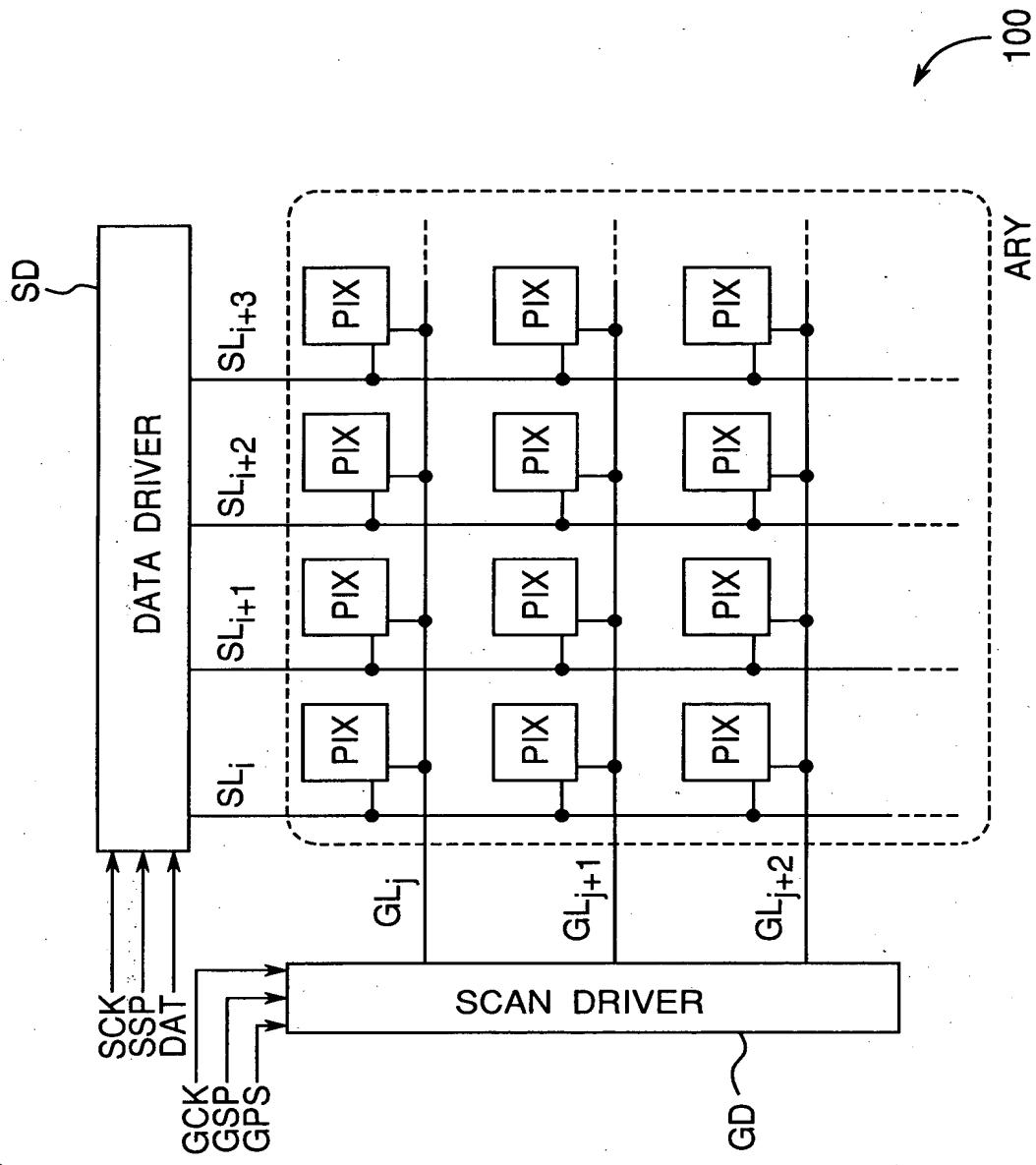


Fig.20 RELATED ART

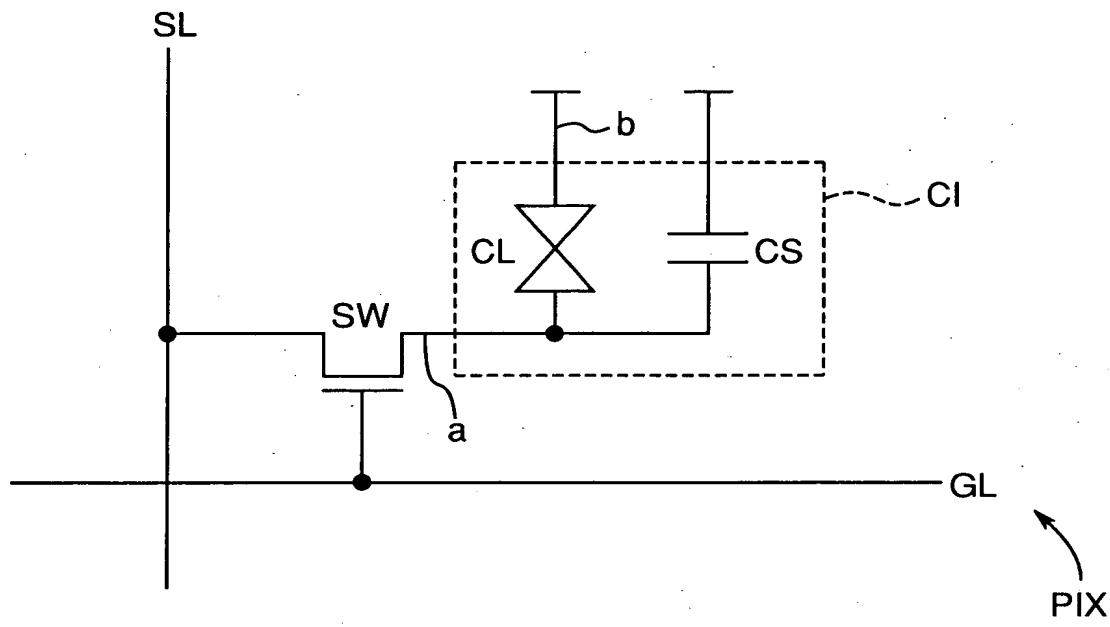


Fig. 21 RELATED ART

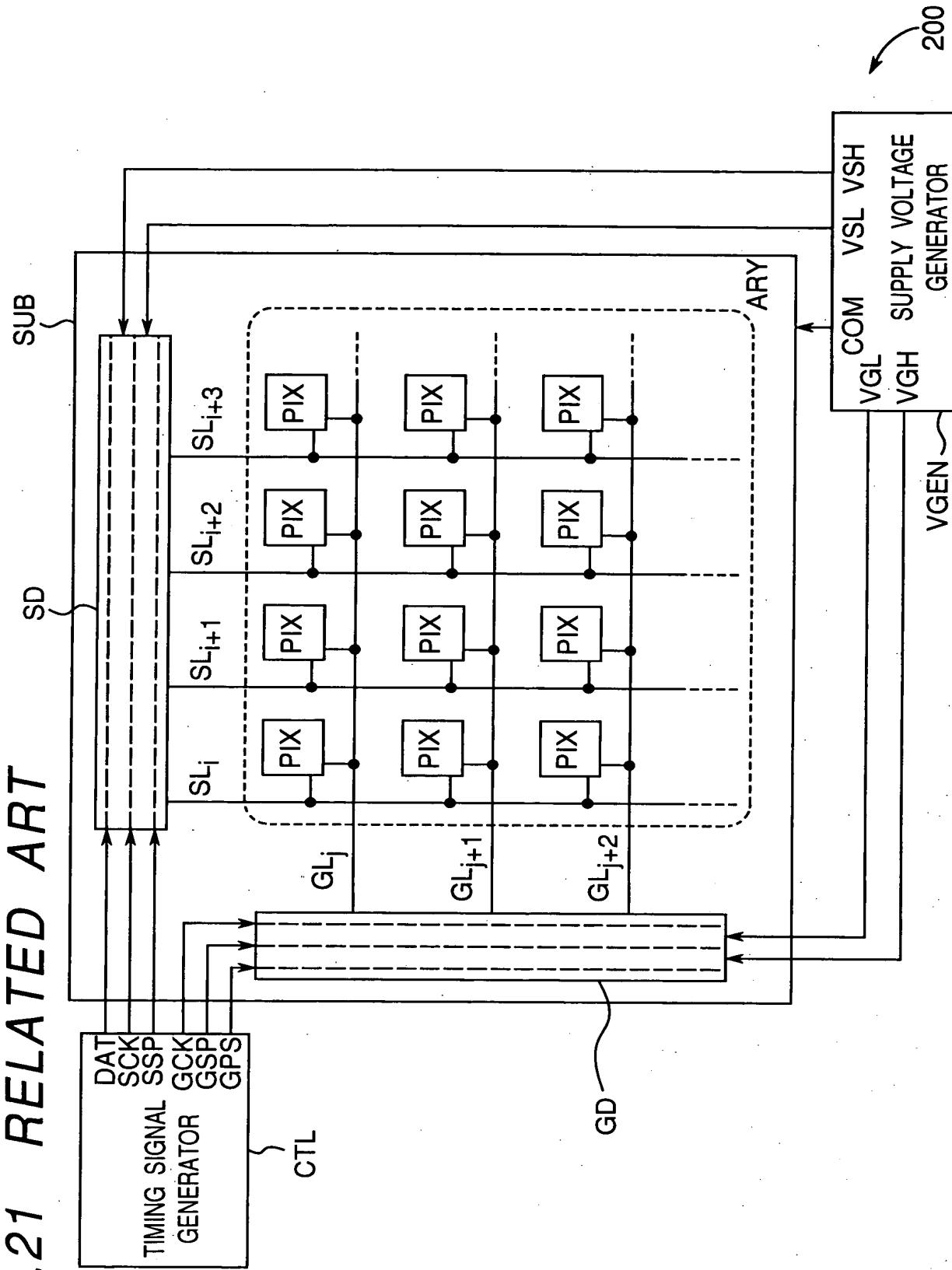


Fig.22 RELATED ART

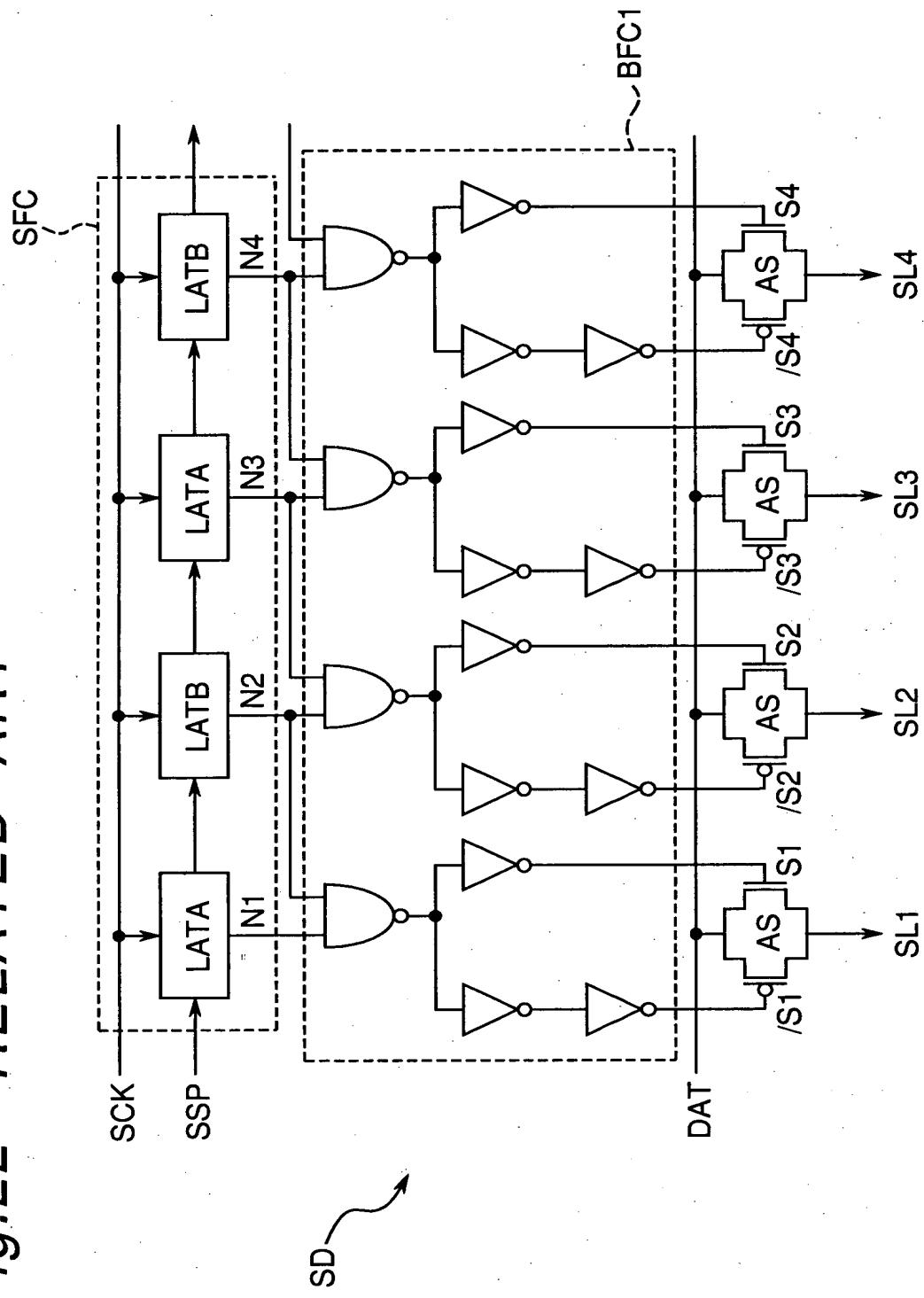


Fig.23 RELATED ART

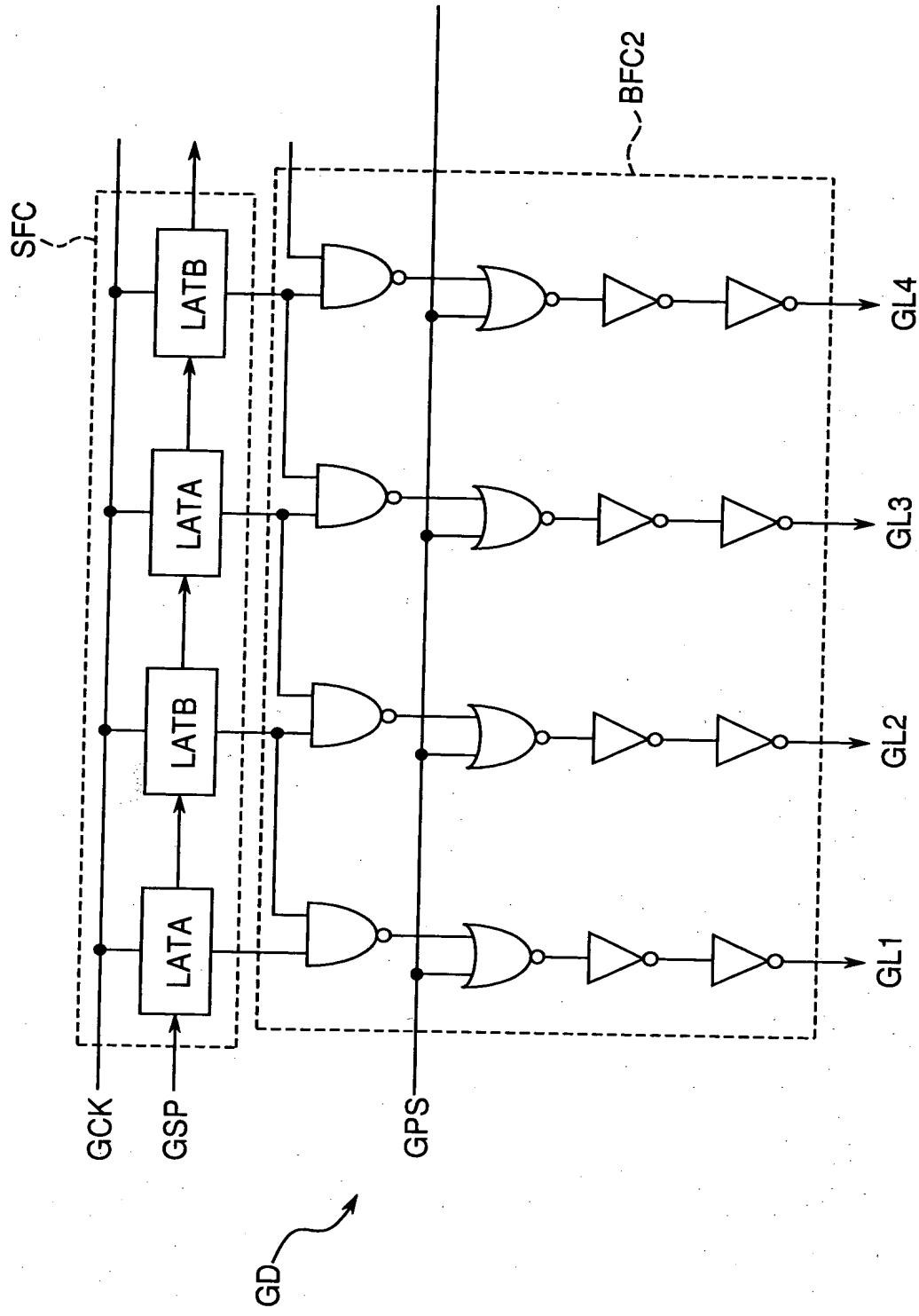


Fig. 24 RELATED ART

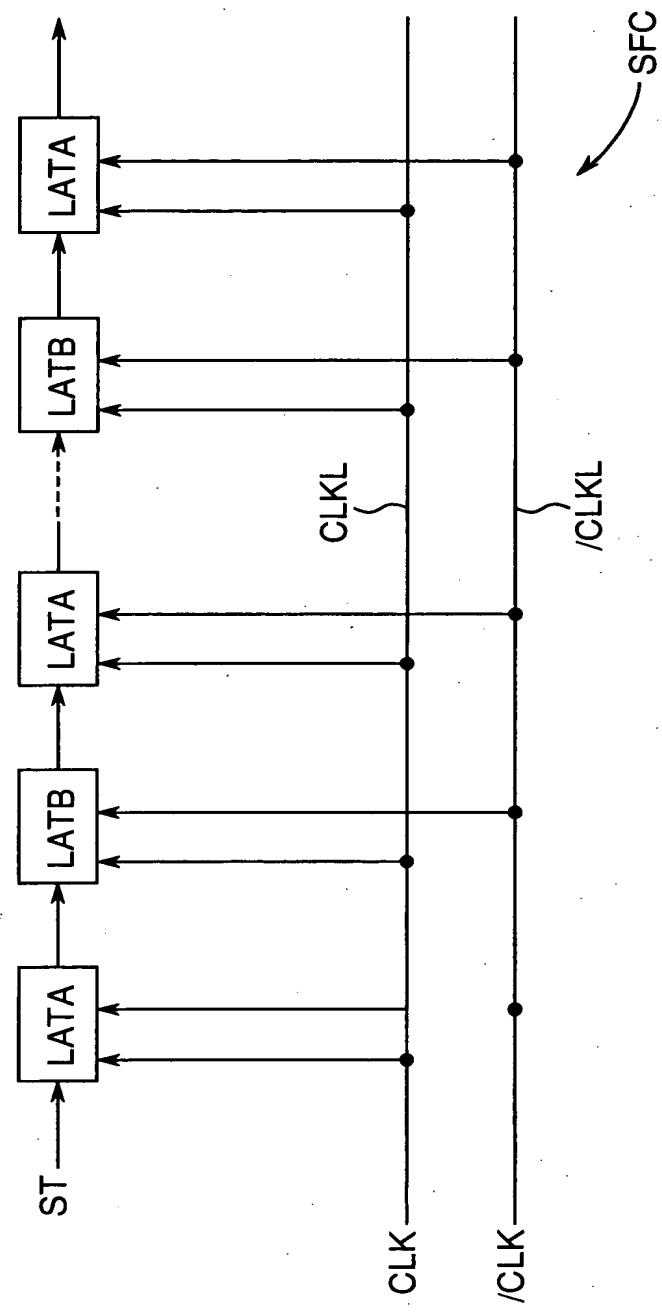


Fig. 25A RELATED ART

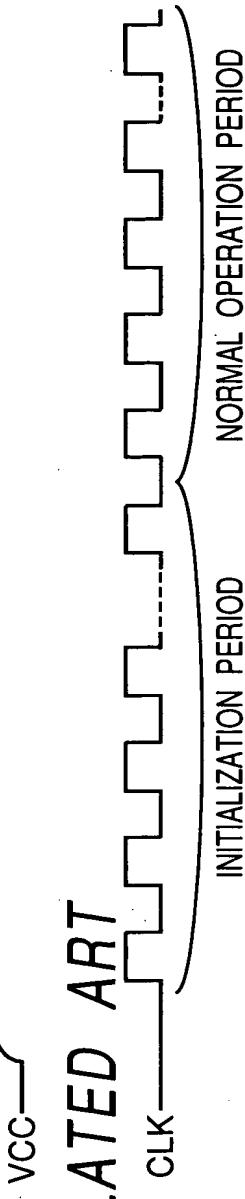


Fig. 25B RELATED ART

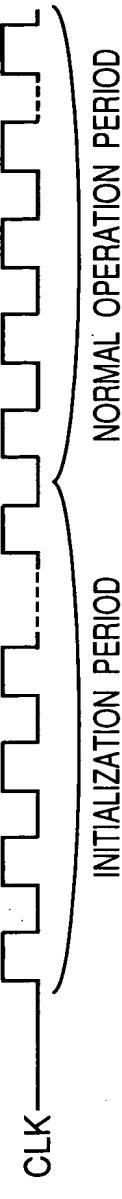


Fig.26 RELATED ART

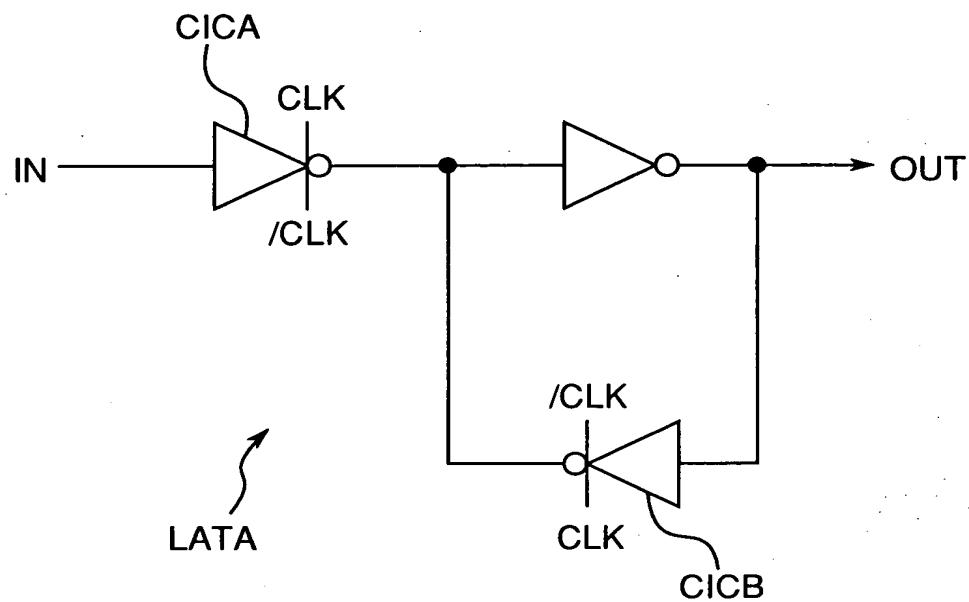


Fig.27 RELATED ART

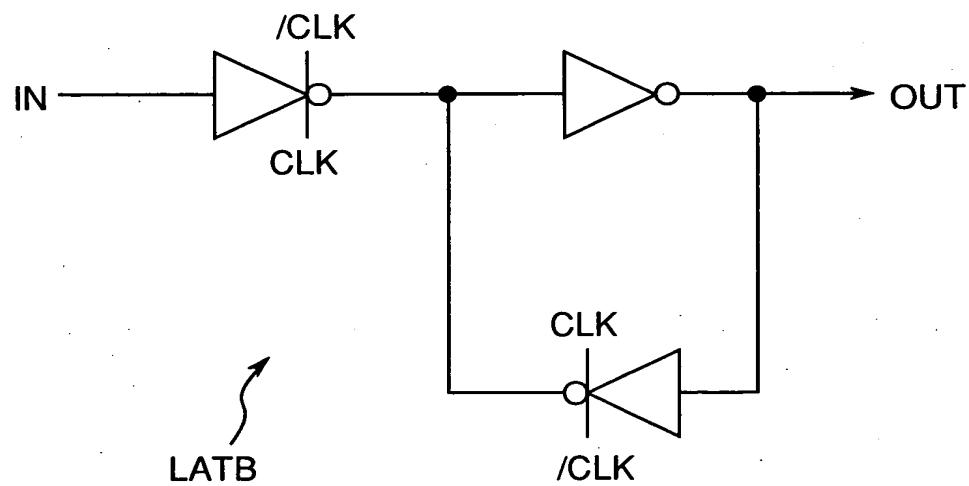


Fig.28 RELATED ART

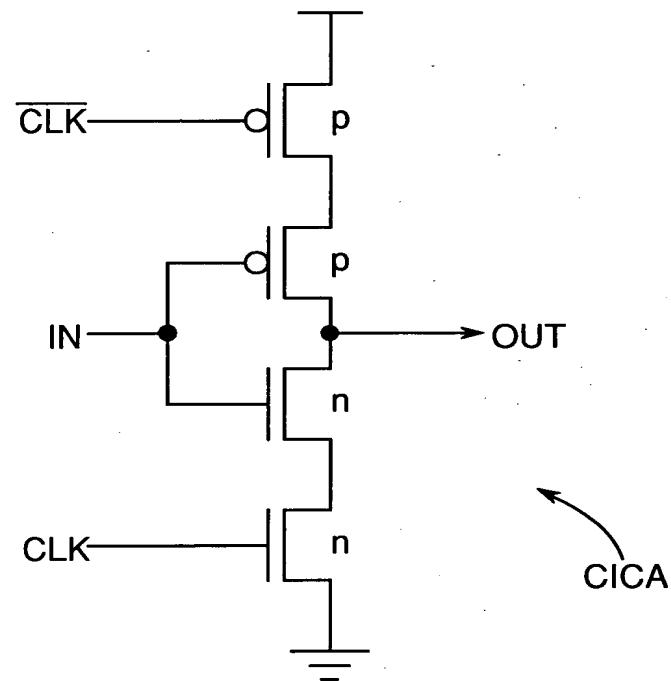


Fig.29 RELATED ART

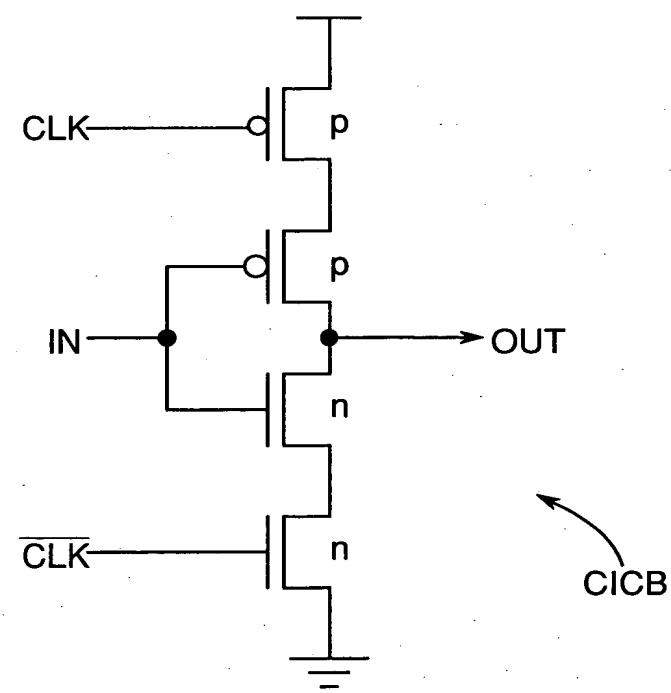


Fig. 30A

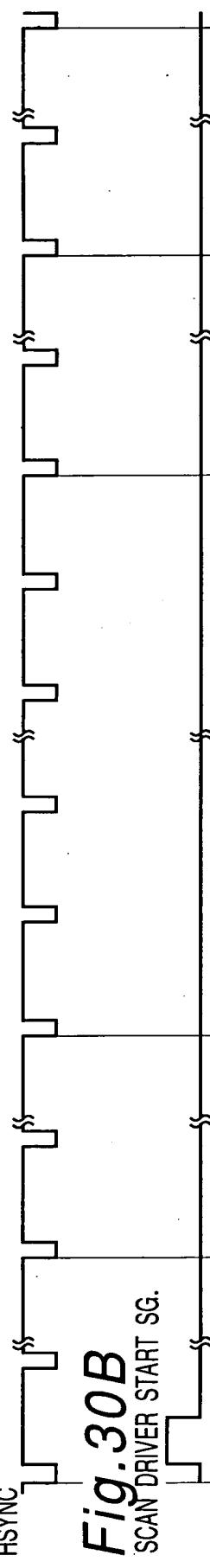


Fig. 30B
SCAN DRIVER START SG.

Fig. 30C
SCAN DRIVER CLOCK

Fig. 30D
DATA DRIVER START SG.

Fig. 30E
DATA DRIVER CLOCK

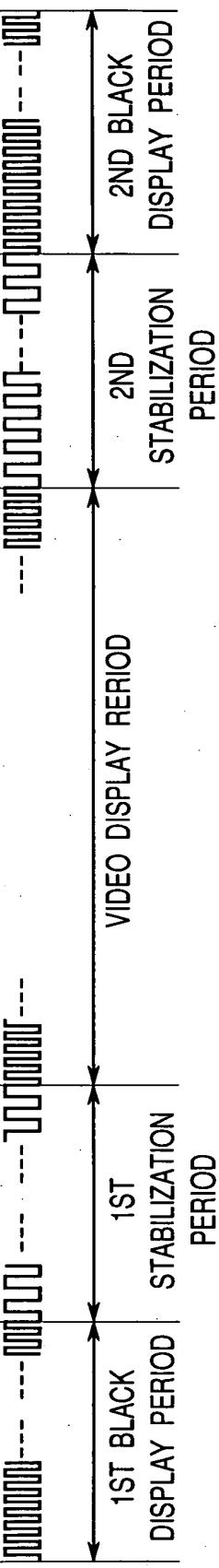


Fig. 31 A

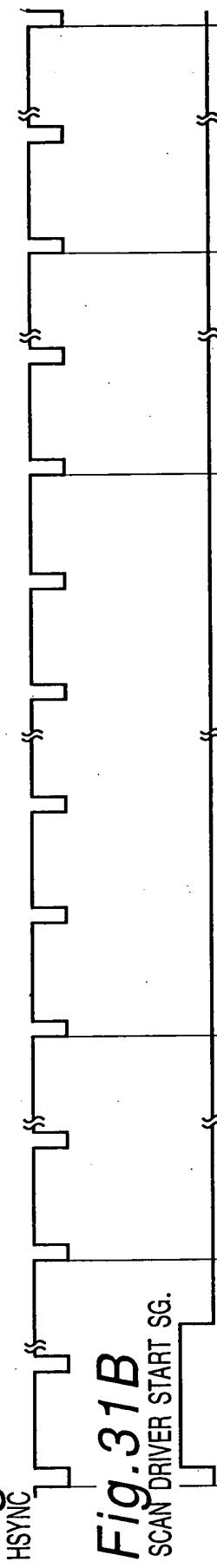


Fig. 31 B
SCAN DRIVER START SG.

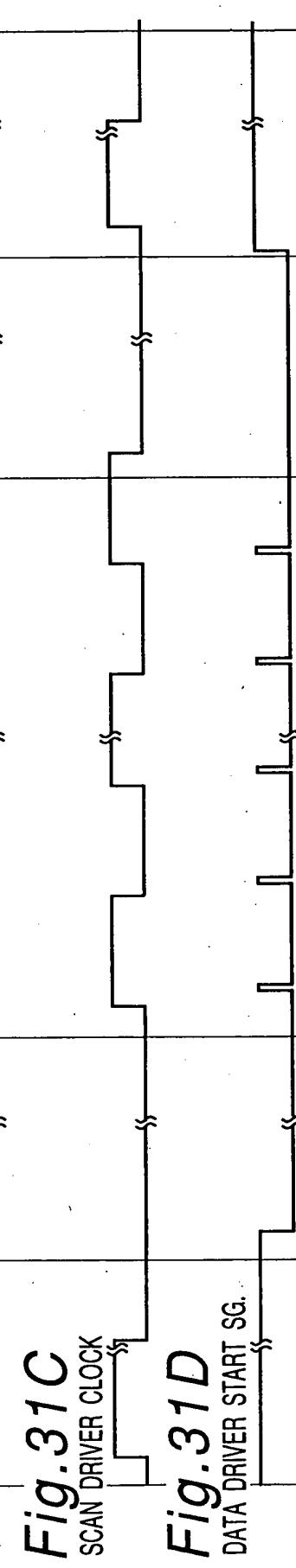


Fig. 31 C
SCAN DRIVER CLOCK

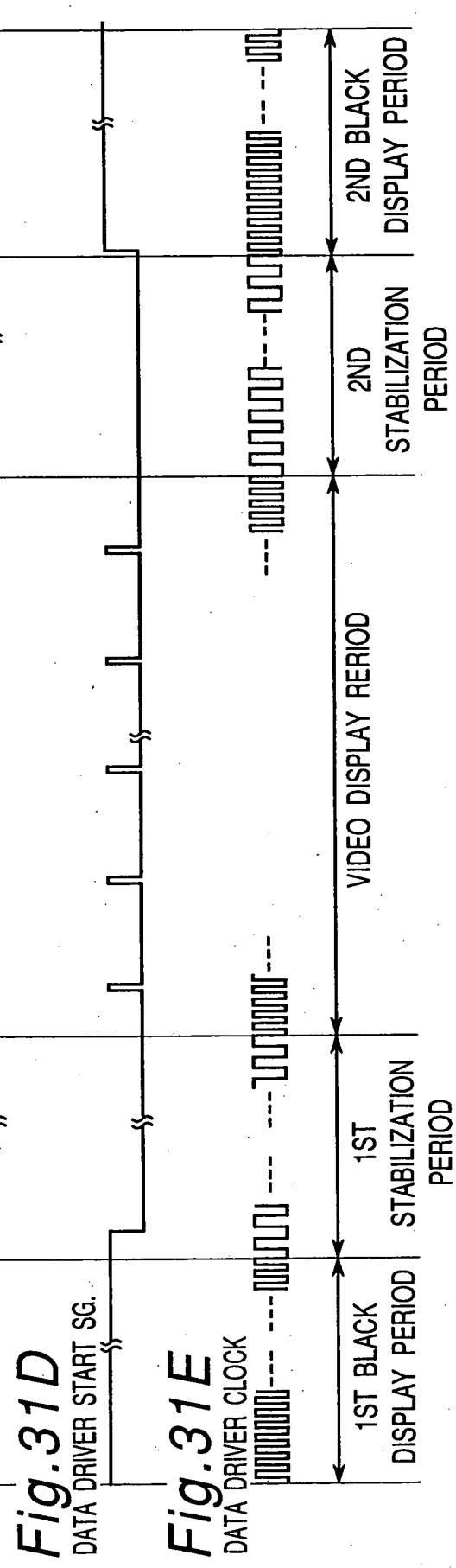


Fig. 31 D
DATA DRIVER START SG.

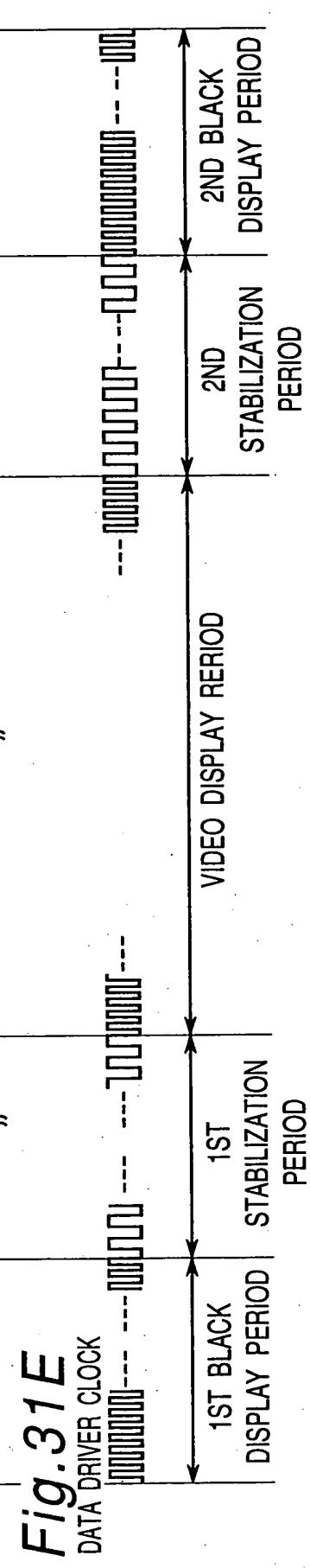


Fig. 31 E
DATA DRIVER CLOCK

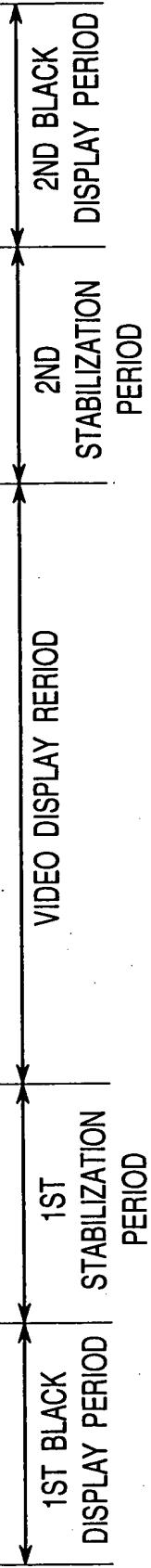


Fig.32 RELATED ART

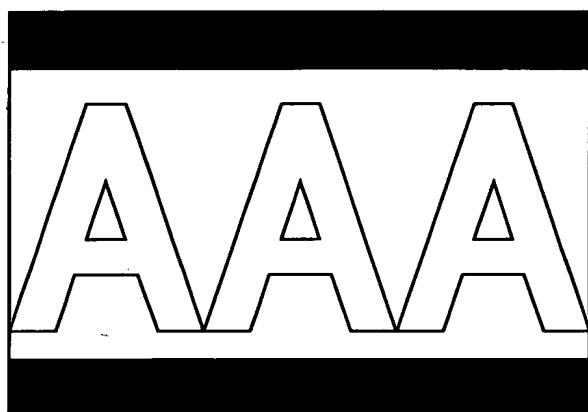


Fig.33A RELATED ART

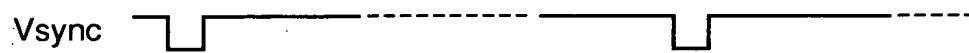


Fig.33B RELATED ART

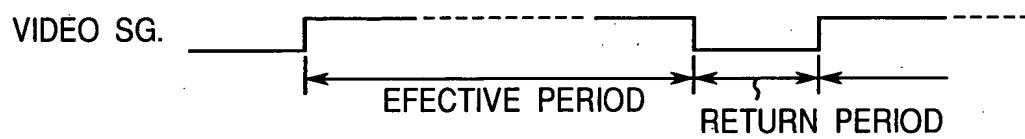


Fig.33C RELATED ART

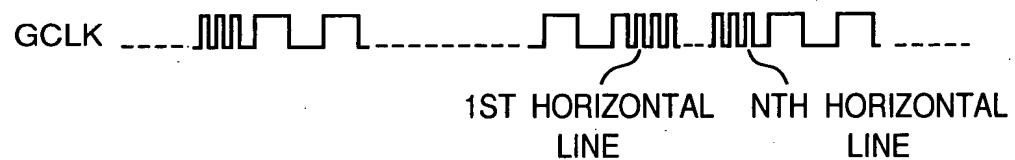


Fig.34 RELATED ART

